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### CLAIMS

1. A process for producing a vanadyl sulphate solution includes the steps of:
  - (1) providing a starting material comprising vanadium trioxide ( $V_2O_3$ );
  - (2) contacting the vanadium trioxide with a sulphuric acid solution to produce a vanadium trioxide suspension; and
  - (3) contacting the vanadium trioxide suspension with a strong oxidising agent that is capable of raising the valency or oxidation state of the vanadium, thereby to dissolve the vanadium trioxide in the sulphuric acid to produce the vanadyl sulphate solution ( $VOSO_4$ ).
2. A process according to claim 1, wherein the strong oxidising agent is selected from the group comprising hydrogen peroxide, sodium peroxide, potassium permanganate, iodine, potassium iodate, potassium bromate, bromine, ammonium persulfate, persulfates of sodium and potassium, cerium (IV) sulphate, and potassium dichromate
3. A process according to claim 2, wherein the strong oxidising agent is hydrogen peroxide.
4. A process according to claim 3, wherein the hydrogen peroxide is added dropwise to the vanadium trioxide suspension.
5. A process according to claim 4, wherein the addition of hydrogen peroxide is stopped when the reduction potential of the vanadium sulphate solution reaches a predetermined end point.

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6. A process according to claim 5, wherein the end point is at about 600mVolts.